

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



June 13, 2005



SEMS DocID 623591

Mr. Gerardo Millan-Ramos
CT Site Assessment Manager
U.S. EPA New England
1 Congress Street
Suite 1100 (HBS)
Boston, MA 02114-2023

Subject: State Lead GAO Site Update
Pine Swamp
Hamden, Connecticut
CERCLIS No. CTD980521082

Dear Mr. Millan-Ramos:

We understand that the subject site is currently listed in the U.S. Environmental Protection Agency's CERCLIS (Comprehensive Environmental Response Compensation and Liability Information System) as a site needing further evaluation for potential remedial action under the federal Superfund program. The site was also identified as a "Potential Superfund Site" in the November 1998 report issued by the US General Accounting Office (GAO), entitled "Hazardous Waste: Information on Potential Superfund Sites". The site is currently being addressed under a remediation program administered by the Connecticut DEP, Bureau of Waste Management, Remediation Section. An update on the State program activity at this site is provided below.

The Pine Swamp site is comprised of 103 acres of undeveloped land located north of Putnam Avenue and south of Treadwell Street. The site has five interconnected ponds that flow to Lake Whitney, a former public drinking water reservoir that will be reactivated in the near future. In 1890 the site was purchased by the Winchester Repeating Arms Company (Winchester). Winchester used the site for storage of gunpowder in earthen bunkers located throughout the site, as a firing range for testing bullets and artillery, and for disposal and incineration of various wastes including batteries, wood, metals, glass, waste gunpowder, and solvents. The Olin Corporation (Olin), the parent company of Winchester, currently owns the site.

On January 10, 1986 the Connecticut DEP and Olin entered into a consent order requiring Olin to investigate the potential impact of past disposal at and around the Pine Swamp site, conduct a Remedial Investigation Study, and present a Remedial Action Plan (RAP) with a schedule to perform the approved actions. Within 30 days of the approval of the RAP and schedule, the Connecticut DEP and Olin will enter into negotiations of another Consent Order requiring Olin to implement the approved RAP. A copy of the consent order is enclosed for your review.

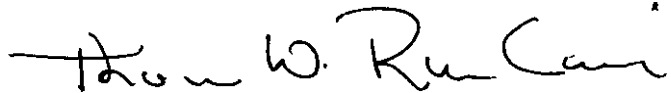
Mr. Millan-Ramos

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Progress on the site investigation was proceeding until 2000 when the Connecticut DEP identified Olin as a responsible party to contamination at the Newhall Street Neighborhood, located approximately ½ mile south of the Pine Swamp site. Since then, the Connecticut DEP and Olin have dedicated significant resources to investigate the contamination at the Newhall Street Neighborhood. The investigation of the Pine Swamp site will restart as soon as the investigation activities at the Newhall area are fully underway.

Based on the past involvement and anticipated future involvement by the Connecticut DEP at the Pine Swamp site, we request that the U.S. EPA identify this site as an "Active State Lead" site in CERCLIS and as such, assign it a low priority for further federal Superfund evaluation. If you have any questions about the site, please contact Raymond Frigon, Jr. of my staff at 860-424-3797.

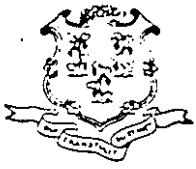
Sincerely,

A handwritten signature in black ink, appearing to read "Thomas W. RisCassi". The signature is fluid and cursive, with the first name "Thomas" and last name "RisCassi" being more prominent than the middle initial "W.".

Thomas RisCassi
Supervising Environmental Analyst
Remediation Section
Bureau of Waste Management

Enclosure

cc: Raymond Frigon, Jr.
Pat DeRosa



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Desk Copy

CONSENT ORDER

WHEREAS, the Commissioner of Environmental Protection (hereinafter "the Commissioner") is charged with the responsibility of protecting the environment of the State of Connecticut and correcting potential sources of pollution pursuant to Sections 22a-6, 22a-424 and 22a-432 of the Connecticut General Statutes, and is empowered to issue this Consent Order under such authority.

WHEREAS, Olin Corporation (hereinafter "Olin") owns property located in Hamden, Connecticut known as Pine Swamp, which is outlined in the map which is Appendix D.

WHEREAS, the Commissioner and Olin are desirous to protect the environment and avoid prolonged litigation.

WHEREAS, the Commissioner and Olin are desirous that any remedial action taken by Olin be consistent with the requirements of the Federal Environmental Protection Agency ("USEPA"), if applicable, and the State Department of Environmental Protection.

WHEREAS, Olin is desirous fully and appropriately to take those
investigatory and remedial measures which are necessary to protect the
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environment and satisfy legal requirements of both the Federal Environmental Protection Agency, where applicable, and the State Department of Environmental Protection.

NOW, THEREFORE, the Commissioner and Olin agree as follows:

1. To implement the provisions of this Consent Order, Olin will disclose to the Commissioner any facts which it knows or may reasonably be able to ascertain and has not previously disclosed, to the Commissioner relative to past storage, disposal and product testing activities at the Pine Swamp property. Disclosure of past activities shall be pursuant to the parameters and provisions of Appendix A, attached hereto, and, in particular, special attention will be given to the following chemicals: tertiary butyl alcohol; acetone; tetrahydrofuran; and the USEPA priority pollutants.

2. In order to ~~evaluate fully~~ the potential impact, if any, of ~~past disposal in the areas located in and around Olin's Pine Swamp property~~, Olin will undertake a Remedial Investigation Study ("RIS"), to be certified by Clean Sites, Inc. as consistent with the National Contingency Plan and other regulations promulgated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Sec. 9601 et seq., hereinafter referred to as "Superfund"), with particular attention focused upon development of data for evaluation of remediation, if required, of the southwest corner of Olin's property, the Anixter area, so-called, and the two areas south of Pond C which have been identified in the ERT Phase II

Investigation as incinerator ash disposal areas, and the southeast kettle area, all of which are outlined in the map which is Appendix D.

3. Within 90 calendar days of the effective date of the Consent Order, Olin will submit to the Commissioner for prior review and approval a work scope and implementation schedule developed jointly by Olin and Clean Sites, Inc., which in the written opinion of Clean Sites is consistent with the National Contingency Plan and other regulations promulgated under Superfund, which will form the basis of the Remedial Investigation Study ("RIS"). The approval of the Commissioner will not unreasonably be withheld. Implementation of the RIS by Olin will commence 60 calendar days after the Commissioner's approval of the work scope and implementation schedule, and the RIS report will be completed and submitted to the Commissioner for his review and approval in accordance with the approved implementation schedule. Clean Sites will review the RIS and will certify that the entire study is consistent with the National Contingency Plan and other regulations promulgated under Superfund. Olin shall also provide to the Commissioner written quarterly progress reports during the performance of the work specified in the work scope.

4. Using the RIS findings, Olin will submit a report to the Commissioner for his review and approval which will propose alternative remedial actions as necessary and shall focus particular attention on the southwest corner of Olin's property, the Anixter area, so-called, and the two areas south of Pond C, which have been identified in the ERT Phase II Investigation as incinerator ash disposal areas and the southeast kettle area, all of which are outlined in the map which is Appendix D. THE RIS SHALL ALSO INCLUDE A PROPOSED SCHEDULE TO ACCOMPLISH THE REQUIREMENTS OF PARAGRAPH 6 BELOW. Within 90 calendar days of

receipt of Olin's report, the Commissioner and Olin shall meet to discuss alternatives for remedial action, and the Commissioner shall, within a reasonable time thereafter, upon consideration of technological feasibility, any comments by the USEPA or Clean Sites and any other factors which he deems relevant, approve a remedial action plan and notify Olin of the approved plan in writing. Cost-effectiveness shall only be a consideration when two or more alternatives achieve substantially the same degree of environmental protection within substantially the same amount of time. If the Commissioner disapproves the report for failure to contain an approvable plan for remediation and Olin does not amend its report, Olin shall retain all its statutory, regulatory and common-law defenses regarding the Commissioner's disapproval in an action by the Commissioner to enforce this Consent Order. If the Commissioner issues an order requiring implementation of a remedial action plan which Olin did not propose or consent to, Olin shall retain its right of administrative and, thereafter, judicial appeal of the order. ~~Within 30 calendar days after the Commissioner notifies Olin of his approval of a remedial action plan, the Commissioner and Olin will enter into negotiations of another Consent Order, requiring Olin to implement the approved plan.~~

5. Olin will commence research to develop analytical methods, in accordance with Appendix B, within 30 calendar days of the effective date of this Consent Order, to identify the chemical substances listed as surrogates in Appendix B. The analytical methods developed by Olin for these substances and the results of the testing and analysis specified in Appendix B shall be incorporated in the RIS.

6. Olin agrees to remove, treat with lime to render non-hazardous and dispose of wastes located in the area known as the "battery disposal area" specified on the map which is Appendix D, in accordance with both the technical report which Olin previously submitted to DEP on August 31, 1984 and Appendix C. DEP agrees that if Olin undertakes this action, DEP shall certify in writing, within 15 calendar days of verification by appropriate test methods as set forth in Appendix C, paragraph C(4), that such treated wastes are non-hazardous, and further, DEP shall exercise its best efforts to assure that a local (within a 75-mile radius) sanitary landfill to dispose of this material will be available, provided, however, notwithstanding any other provision of this Order, Olin shall not be required to dispose of the material described in this paragraph in any other manner than in a sanitary landfill. OLIN SHALL ACCOMPLISH THE REMOVAL AND DISPOSAL OF SUCH WASTES IN ACCORDANCE WITH THE TIME SCHEDULE APPROVED BY THE COMMISSIONER, UPON RECEIPT OF THE RIS REPORT SUBMITTED TO COMPLY WITH PARAGRAPH 4 ABOVE, AND IN ACCORDANCE WITH THE PROVISIONS OF THIS PARAGRAPH.

7. Olin shall accomplish the above-described program, except as it may be revised by agreement of the Commissioner and Olin, in accordance with the following schedule:

- a. Within 75 calendar days of the effective date of the Consent Order, Olin will submit to the Commissioner a final report as detailed in Paragraph 1 above and Appendix A attached.

STEPS b. THROUGH g. HAVE BEEN ELIMINATED

8. Nothing contained in this Consent Order shall constitute an admission of law or fact, shall be introduced into evidence as proof of the same, or shall constitute proof of violation of any law or regulation or standard. By agreeing to the issuance of the Consent Order, Olin waives any further rights it may have for an appeal on the subject of this Consent Order; ~~Olin waives any further rights it may have for an appeal on the subject of this Consent Order;~~ however, either party may seek judicial interpretation of this Order.
9. Neither party shall be liable to the other for any delay with respect to any agreed upon schedule in this Consent Order if such delay is caused by unforeseeable events not in the control of either party, the results of which were reasonably unavoidable and uncorrectable. Such events may include acts of God or the public enemy, labor troubles, strikes, walkouts, non-availability of labor, riots, fires, storms, explosions, railroad embargoes or congestions, government embargoes or interventions, failure of manufacturers or persons from whom Olin is obtaining machinery, equipment, materials, supplies, or services to deliver the same or other causes beyond its control, whether or not herein specifically described.
10. Either party may, by written statement, allow additional time for compliance with any step of this order if, for reasons beyond the control of the other party and despite its good faith efforts, the other party is unable to meet any compliance date set forth herein.

ENTERED as a modification to the January 10, 1986 Agreement between the
Commissioner and Olin this twenty second (22nd) day of April, 1987.

THE STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

BY *John W. Anderson*

R JOHN W. ANDERSON, ACTING COMMISSIONER

OLIN CORPORATION,

~~NEW HAVEN~~, CONNECTICUT

Stamford

BY *R. R. Berry*

ome R. R. BERRY

EXECUTIVE VICE PRESIDENT

APPENDIX A
PINE SWAMP
PAST STORAGE, DISPOSAL AND PRODUCT TESTING

Olin agrees to prepare a report describing, to the best of its knowledge after reasonable investigation and consistent with available records and documentation, the nature of past storage, disposal and product testing practices employed at the corporation's property known as Pine Swamp. This disclosure will include those activities occurring from the inception of storage, disposal or product testing activities until their termination in 1966, consistent with the investigation above, and will supplement the various reports and correspondence already provided to DEP.

Specifically, information in the following areas will be provided.

- A. History of the Pine Swamp property including a description of past uses (including but not limited to storage of various materials, testing of various products, disposal of products (e.g. batteries) and disposal of industrial wastes). The history shall include a list of all chemicals which Olin knows or may reasonably be able to ascertain were stored or disposed of at Pine Swamp.
- B. Summary of ground and surface water analytical data of which Olin is aware after reasonable investigation, relating to the potential impact (if any) of past disposal activities.
- C. Copy of the March 1966 Hamden Health Department's minutes describing a meeting in which Olin agreed to terminate disposal activities at Pine Swamp.
- D. List of industrial firms located adjacent to Olin's Pine Swamp property along with a description of each firm's major business and potential disposal activities.
- E. List of storm water drainage inputs currently discharging into Pine Swamp including estimated flow rates and the approximate composition of this typical urban runoff to illustrate how these discharges would contribute to background levels for certain pollutants, over which Olin would and continues to have no control.

APPENDIX B

SCOPE

In accordance with a schedule approved by the Commissioner, samples shall be taken from the intake to the Lake Whitney water treatment plant and from DEP-approved monitoring wells located at the property line where ground water is discharged from the site to Lake Whitney and at a location within the actual property in the approximate center of the area used for disposal of industrial waste and R & D Chemicals, if any, (southwest corner)..

Pursuant to a schedule approved by the Commissioner, each sample shall be analyzed in accordance with the following, and the results reported to the Commissioner:

- EPA SW 846 protocol (with the Georgia modifications) which is Appendix E to the Administrative Order on Consent.
- Analytical methodologies, consistent with paragraph 5 of the Administrative Order on Consent, that will be designed to detect the following surrogate parameters which were selected because they appear to represent those chemicals that were handled for major categories of activity during the period of interest:

Toluene diamine
2,4,4,4 tetrachlorobutylalcohol
Trichloroethylene
2 Chloropyridine
Diethyleneglycolmonoethylether
Hydrazine
2,2,2 trichloro 2',4' dinitroacetanilide
Pentachloronitrobenzene
Lithium
Boron

APPENDIX C
REMOVAL OF BATTERY WASTES

A. The boundaries of the battery disposal area shall be confirmed by hand auger drilling and then the waste shall be excavated, dewatered, mixed with lime and removed from the site for final disposition in a nearby (within a 75 mile radius) sanitary landfill.

B. The resultant excavation shall be returned to the original grade with clean fill, as defined in Section 22a-209-1 of the Regulations of Connecticut State Agencies as amended, and the entire area seeded and cared for until a stand of perennial vegetation is established.

C. The criteria to be utilized in this process are:

1. Excavation shall be conducted until the soil/waste interface is observed and then an additional six inches of material shall be removed.
2. Excavated waste shall be stockpiled in 100-300 cubic yard batches, and, because of the temporary nature of this construction, sediment control procedures approved by the Commissioner of Environmental Protection shall be used to manage particulates in the runoff. Any liquids encountered during this process shall be contained and subsequently discharged to the ponds.
3. Lime shall be added (equivalent to 5 to 10% by weight) to each 100 to 300 cubic yard batch.
4. Tests shall be conducted on every other batch to assure that the lime-treated waste passes the RCRA Toxic Extraction Procedure (TEP) for lead, 40 CFR Part 261, Appendix III, Table 3 ("Sampling and Analysis Methods Contained in SW-846"), Methods Nos. 8.56 (First Edition) and 7420, 7421 (Second Edition). These tests shall be conducted on composite samples, each consisting of four grab samples.
5. Clean fill shall be imported to the site and when the original elevation has been re-established, the entire area will be graded and seeded.
6. The waste removed from the excavation site will be treated as non-hazardous (after verification by appropriate test methods as set forth in Paragraph C(4) above).